

Testimony of Julie Trachman
Professor of Natural Sciences, Hostos Community College
Before the Board of Trustees of the City University of New York

Concerning the Pathways Initiative

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We are all in agreement that there are transferability issues in the CUNY system, which need to be resolved. However, many of us feel that the Pathways initiative is not the best way to remedy the problem. We feel that implementation of the 30 credit Common Core as it is structured now will have a negative impact on the quality of the education of our students, especially those students at the community college campuses, and particularly when it comes to our students' education in the science disciplines. Not to mention the Pandora's Box of problems that will arise if a student wants to use their science credits outside of the CUNY system.

The Pathways learning outcomes for the Life and Physical Sciences portion of the Common Core are consistent with the wish to have our students graduate as scientifically literate citizens, a goal touted as being essential for living in the 21st century. Among the mandated CUNY learning outcomes are: a) apply the scientific method to explore natural phenomena, including hypothesis development, observation, experimentation, measurement, data analysis, and data presentation; b) use the tools of a scientific discipline to carry out collaborative laboratory investigations; and c) gather, analyze, and interpret data and present it in an effective laboratory or fieldwork report.

Despite the fact that the mandated CUNY learning outcomes require our non-STEM students to engage in rigorous laboratory experiences, it would be virtually impossible to do so in a meaningful manner because Pathways constrains us to implement the majority of the Common Core courses in a 3 credit / 3 hour lockstep manner. Thus, our students might never have the opportunity to be exposed to science courses with a real laboratory component. The best we would be able to do would be to offer an occasional

simulation, which would be a weak substitute for a real hands-on laboratory experience. Many of our community college students enter our school with negligible to zero experience in science. Our students, like so many students across the country, have difficulty visualizing the abstract concepts that we teach them in lecture. That is the reason why the national standard for science courses includes a laboratory component that typically runs in parallel with the lecture. Without such a concurrent laboratory component, we predict that many more of our students will fail and will have to repeat the science courses. One suggested solution—a 3 credit lecture course followed in a later semester by a required 3 credit laboratory course—will not be an adequate solution for many of our students because the theoretical learning in the lecture will be uncoupled from the visual and kinesthetic learning that occurs in the laboratory.

In conclusion, we want to offer our students appropriately rigorous science courses that meet their academic needs at the senior colleges, that satisfy their needs for their career aspirations and that meet society's need to have scientifically literate citizens. We believe that the Pathways initiative, as it is structured now, will not allow us to do these things for our students.